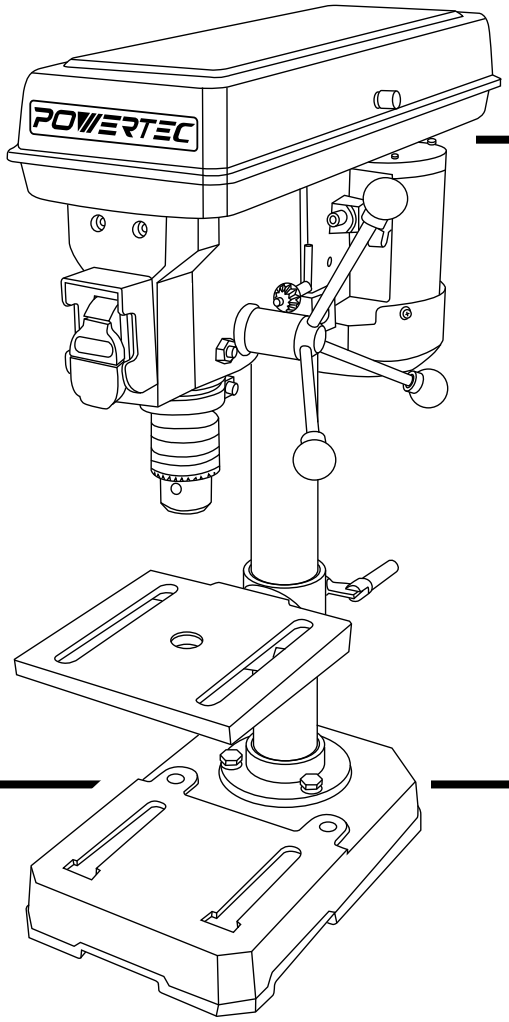
Model No. DP800

Owner's Manual

POWERTEC

8" DRILL PRESS

QUESTION...
1•877•393•7121



Visit us on the web at **www.southerntechllc.com**

You will need this manual for safety instructions, operating procedures, and warranty. Put it and the original sales invoice in a safe, dry place for future reference.

10-0708

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PRODUCTION SPECIFICATIONS

Peak HP	2/5
5 Speeds	620, 1100, 1720, 2340, 3100 RPM
Swing	8"
Chuck	1/2"
Spindle Travel	2"
Table Size	6-1/2" x 6-1/2"
Table Movement	45° Bevel, 360° Swivel
Overal Height	22-1/2"
Net Weight	35 lbs

⚠WARNING

For your own safety, read and understand all warnings and operating instructions before using any tool or equipment.

⚠WARNING

Some dust created by operation of power tool contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.
To reduce your exposure to these chemicals: work in a well ventilated area and work with approved safety equipment. Always wear OSHA/NIOSH approved, properly fitting face mask or respirator when using such tools.

⚠WARNING

Failure to follow these rules may result in serious personal injury. Remember that being careless for even a fraction of a second can result in severe personal injury.

WORK PREPARATION

- Wear proper apparel. Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelry which may get caught in moving parts of the tool.
- Nonslip protective footwear is recommended. Wear protective hair covering to contain long hair.
- Wear eye and hearing protection. Always use safety glasses. Eye protection equipment should comply with ANSI Z87.1 standards. Hearing equipment should comply with ANSI S3.19 standards.
- Wear face mask or dust mask if operation is dusty.
- Be alert and think clearly. Never operate power tools when tired, intoxicated or when taking medications that cause drowsiness.

WORK AREA PREPARATION

- Keep work area clean. Cluttered work areas and benches invite accidents.
- Work area should be properly lighted.
- Do not use the machine in a dangerous environment. The use of power tools in damp or wet locations or in rain can cause shock or electrocution.
- Three-prong plug should be plugged directly into properly grounded, three-prong receptacle.
- Use the proper extension cord. Make sure your extension cord is in good condition. It should have a grounding prong and should be of the correct gauge.
- Keep children and visitors away. Your shop is a potentially dangerous environment. Children and visitors can be injured.
- Make your workshop childproof with padlocks, master switches or remove switch keys to prevent any unintentional use of power tools.

TOOL MAINTENANCE

- Turn the machine "OFF", and disconnect the machine from the power source prior to inspection.
- Maintain all tools and machines in peak condition. Keep tools sharp and clean for best and safest performance.
- Follow instructions for lubricating and changing accessories.
- Check for damaged parts. Check for alignment of moving parts, binding, breakage, mounting and any other condition that may affect tool's operation.
- Poorly maintained tools and machines can further damage the tool or machine and/or cause injury.
- A guard or any other part that is damaged should be repaired or replaced. Do not perform makeshift repairs.

TOOL OPERATION

- Avoid accidental start-up. Make sure that the tool is in the “OFF” position before plugging in.
- Use the right tool for your job. Do not force your tool or attachment to do a job for which it was not designed.
- Disconnect tool when changing parts.
- Don't force the workpiece on the machine. Damage to the machine and/or injury may result.
- Never leave tool running unattended. Turn the power off and do not leave tool until it comes to a complete stop.
- Do not overreach. Loss of balance can make you fall into a working machine, causing injury.
- Never stand on tool. Injury could occur if the tool tips, or if you accidentally contact the cutting tool.
- Know your tool. Learn the tool’s operation, application and specific limitations before using it.
- Use recommended accessories. Use of improper accessories may cause damage to the machine or injury to the user.
- Handle workpiece correctly. Keep hands away from moving parts.
- Turn tool off if it jams.

CAUTION: Think safety! Safety is a combination of operator common sense and alertness at all times when tool is being used.

⚠WARNING

Do not attempt to operate tool until it is completely assembled according to the instructions.

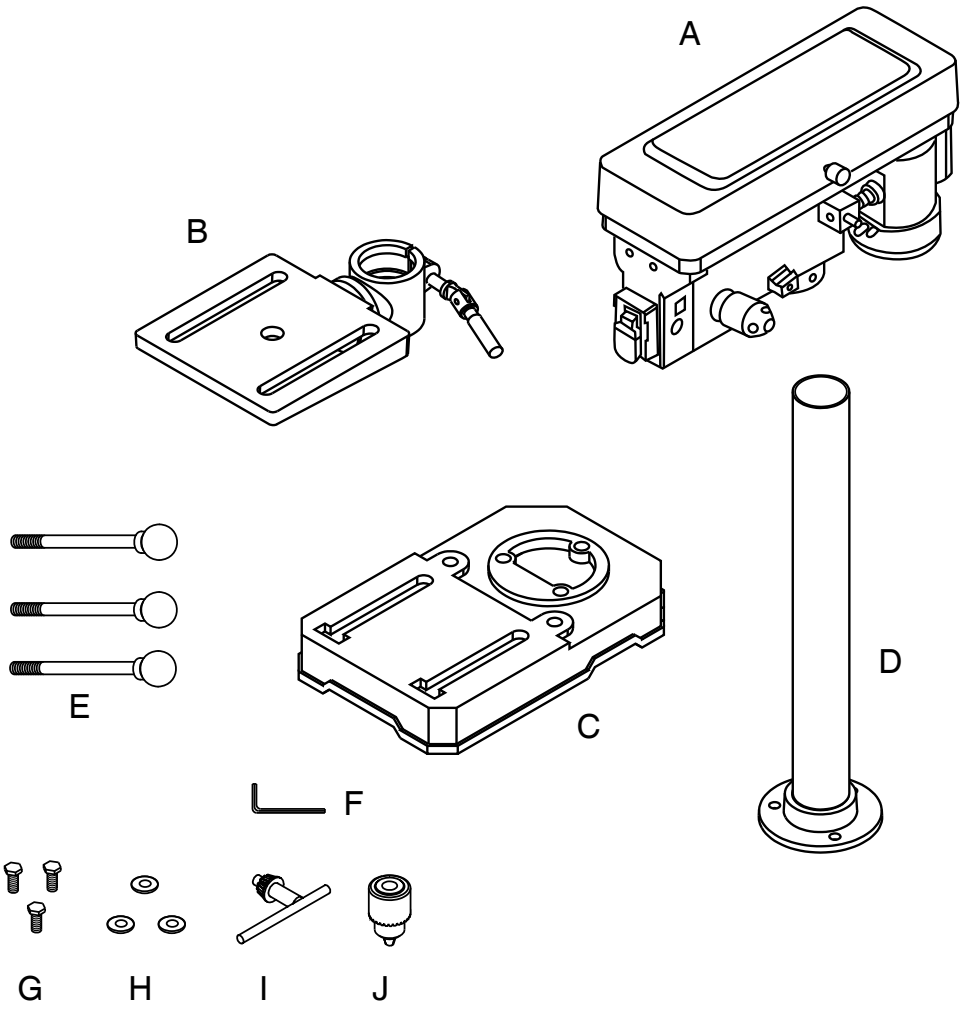
ASSEMBLY

UNPACKAGING

Refer to Figure 1.

- Check freight damage before opening the package. If freight damage is noticed, file claim with the carrier immediately.
- Check for complete part list. Contact Customer Service Center immediately for missing parts.
- Locate the following parts before assembling:
  A. Head Assembly
  B. Table
  C. Base
  D. Column Assembly
  E. Feed Handles (3)
  F. Hex Wrench
  G. Hex Bolts (3)
  H. Spring Washers (3)
  I. Chuck Key
  J. Chuck

Figure 1 - Unpacking



⚠WARNING

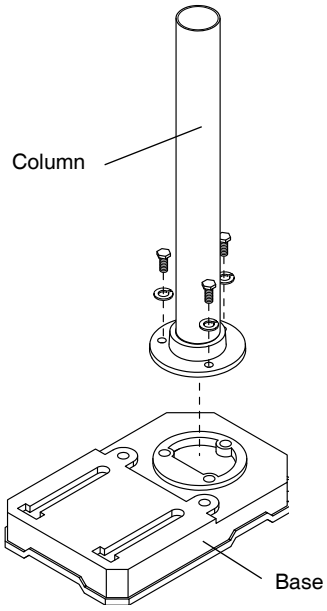
The drill press is designed to be safely assembled by at least two people working together.

INSTALL COLUMN SUPPORT

Refer to Figure 2

- Place the base on the floor or a bench.
- Place column on the base.
- Align the holes and secure the column on the base with 3 long hex bolts and washers.

Figure 2

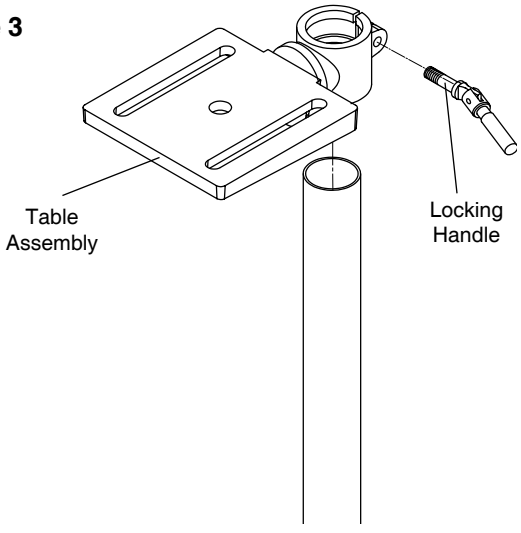


INSTALL THE TABLE

Refer to Figure 3

- Locate the table assembly. Slide table assembly over the column.
- Insert lock handle into the threaded hole at the rear of the table assembly.
- To lock table in position, tighten lock handle to secure table.

Figure 3

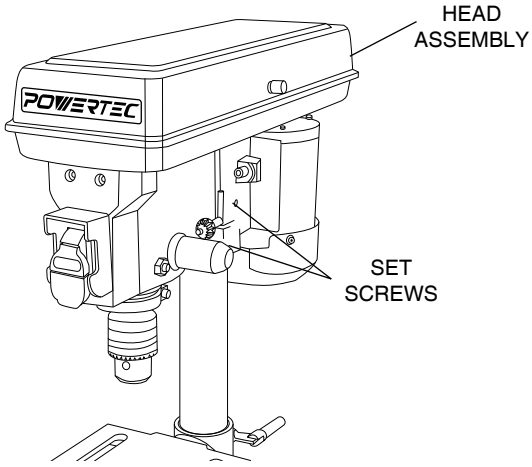


INSTALL THE DRILL PRESS HEAD

Refer to Figure 4

- Position and slide the head over the column.
- Carefully rotate the head on the column so it is aligned with the base.
- Secure the drill press head with two lock set screws, using the hex wrench.

Figure 4

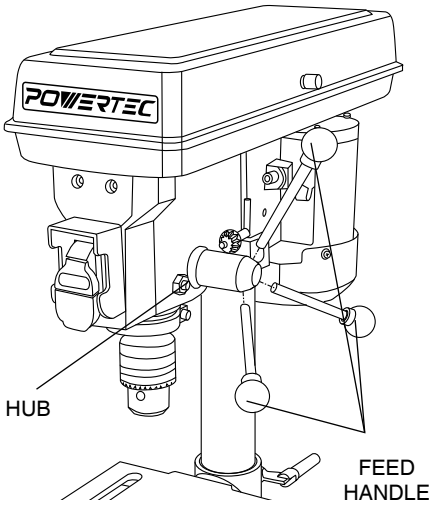


INSTALL HANDLES

Refer to Figure 5

- Locate the three thread holes on the hub of the head.
- Thread the handles into the holes of hub until tight.

Figure 5



INSTALL THE CHUCK

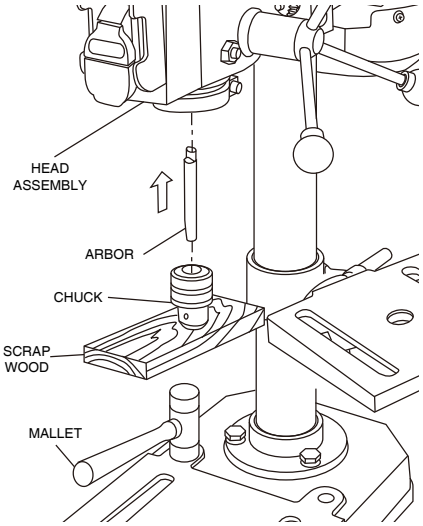
Refer to Figure 6

⚠WARNING

Clean the spindle taper and the tapered hole in the chuck before assembly. Remove factory protective coating with alcohol or household oven cleaner.

- Rotate the chuck sleeve counterclockwise and open the jaws as wide as possible.
- Place chuck on the taper of spindle and gently tape the chuck into position with a rubber hammer or a hammer with wood block. Never use metal hammer directly.

Figure 6

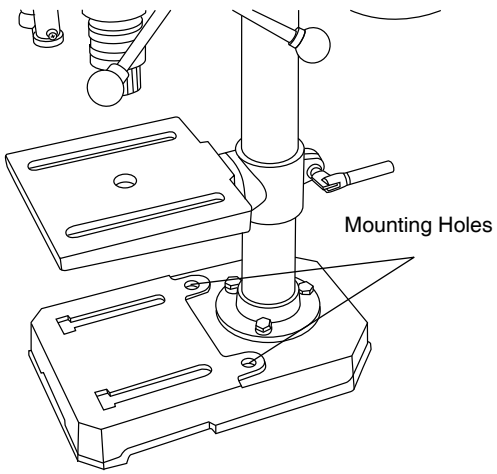


MOUNT DRILL PRESS

Refer to Figure 7

- The machine must be installed in a well-lighted area with correct power supply.
- The machine can be installed on either a workbench or a tool stand by using bolts, lock washers, and hex nuts.
- The machine must be bolted to a firm and level surface.
- There must be enough clearance for the moving workpiece during operation. There must be enough room for safety operation of the machine.

Figure 7



POWER SOURCE

⚠WARNING

Do not connect to the power source until the machine is completely assembled.

The machine is wired for 120 volts, 60 Hz alternating current. Before connecting the machine to the power source, make sure the switch is in the "OFF" position. Running the unit on voltages which are not within range may cause overheating and motor burn-out. Heavy loads require that voltage at motor terminals be no less than the voltage specified on nameplate.

- Power supply to the motor is controlled by a locking rocker switch. Remove the key to prevent unauthorized use.

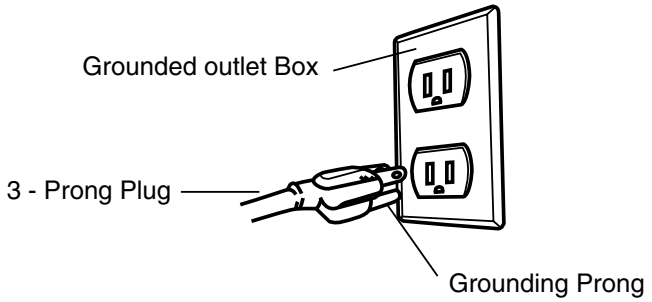
GROUNDING INSTRUCTIONS

⚠WARNING

Improper connection of equipment grounding conductor can result in the risk of electrical shock.

- The machine should be grounded while in use to protect operator from electrical shock.
- In the event of an electrical short circuit, grounding reduces the risk of electrical shock by providing an escape wire for the electric current.
- This machine is equipped with an approved 3-conductor cord rated at 150V and a 3-prong grounding type plug (Figure 8) for your protection against shock hazards.
- Grounding plug should be plugged directly into a properly installed and grounded 3-prong grounding-type receptacle, as shown (Figure 8)
- The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.
- Check with a qualified electrician or service personnel if these instructions are not completely understood or if in doubt as to whether the tool is properly grounded.
- Do not modify plug provided. If it will not fit in outlet, have proper outlet installed by a qualified electrician. Use only 3-wire extension cords, that have 3-prong grounding type plugs and matching 3-conductor receptacles that accept the machine's plug, as show in Figure 8

Figure 8 - 3-Prong Receptacle



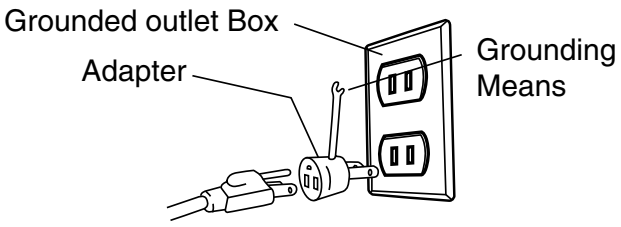
⚠WARNING

Do not permit fingers to touch the terminals of plug when installing or removing from outlet.

- Inspect tool cords periodically, and if damaged, have repaired by an authorized service facility.
- The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the green (or green and yellow) wire to a live terminal.

A temporary 3-prong to 2-prong grounding adapter (see Figure 9) may be used to connect this plug to a matching 2-conductor receptacle as shown in figure 9. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician.

Figure 9 - 2-Prong Receptacle



In Canada, the use of temporary adapter is not permitted by the Canadian Electric Code. Where permitted, the rigid green tab or terminal on the side of the adapter must be securely connected to a permanent electrical ground such as a properly grounded water pipe, a properly grounded outlet box or a properly grounded wire system.

- Many cover plate screws, water pipes and outlet boxes are not properly grounded. To ensure proper ground, grounding means must be tested by a qualified electrician.

EXTENSION CORDS

Use proper extension cords. Make sure the extension cord is in good condition. Use only 3-wire extension cords have 3-prong grounding type plugs and 3-pole receptacles which accept the tool plug. When using an extension cord, make sure to use one heavy enough to carry the current of the machine. An undersized cord will cause a drop in the voltage, resulting in loss of power and overheating. Use the table to determine the minimum wire size (A.W.G.) extension cord.

Extension Cord Length

Wire Size	A.W.G.
Up to 25 ft.	18
25 to 50 ft.	16

NOTE: Using extension cords over 50 ft. long is not recommended.

OPERATION

DESCRIPTION

Powertec 8" drill press equipped with 5 speeds ranging from 620 RPM, 1100RPM, 1720RPM, 2340RPM and 3100RPM.

⚠WARNING

For your own safety, read the entire operation manual and safety instructions before using the machine.
injury.

SAFETY PRECAUTIONS

- Be aware of general power tool safety. Make sure all the safety rules are understood.
- Disconnect the machine from power source whenever adjusting or replacing any parts.
- Do not plug in unless switch is in "OFF" position.
- Keep hands away from all moving parts.
- Wear eye protection or face shield during operation.
- Make sure all mobile parts move freely and are free from interference.
- Never turn the machine "ON" with the workpiece con tacting the drill bit.
- Properly support long or wide workpieces.
- Turn switch off and disconnet power whenever drill press is not in use.
- Keep drill press maintained. Follow maintenance.
- Properly lock the drill bit before operating this machine.
- Remove the chuck key before start the machine.
- Tighten all lock handles before starting the machines.
- Hold the workpiece firmly against the table.

ON/OFF SWITCH

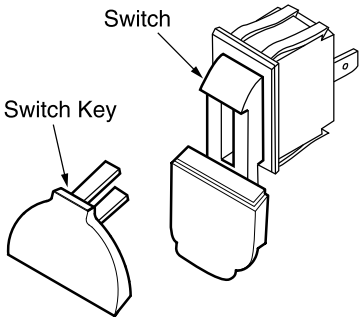
Refer to Figure 10

The ON/OFF switch is located on the front of drill press head. To turn the machine ON, pull the switch to the up position. To turn the machine OFF, push the switch to the down position.

NOTE: When the machine is not in use, the machine should be locked in the "OFF" position to prevent unauthorized use.

- To lock the machine, turn the switch to "OFF" position. Pull the key out. The switch cannot be turned on without the key.
- If the key is removed when the switch is at the "ON" position, the switch can be turned off but cannot be turned on again.
- To unlock, place the key into the slot on switch unit until it snaps.

Figure 10 - On-Off Switch



ADJUST TABLE HEIGHT AND TILT TABLE

Refer to Figure 11 and 12

- To raise or lower the table, loosen the table locking handle. Move the table bracket assembly up and down to desired height and then tighten the locking handle.
- To rotate the table, loosen locking handle, rotate table to the desired position, and tighten the handle.
- To tilt the table right or left by loosening the table hex bolt underneath the table platform.
- Tilt the table to the desired position. Tighten the table hex bolt.
- The table alignment is used only when the table plat form is level.
- Tilt scale on the table bracket shows the degree of table tilt.

Figure 11

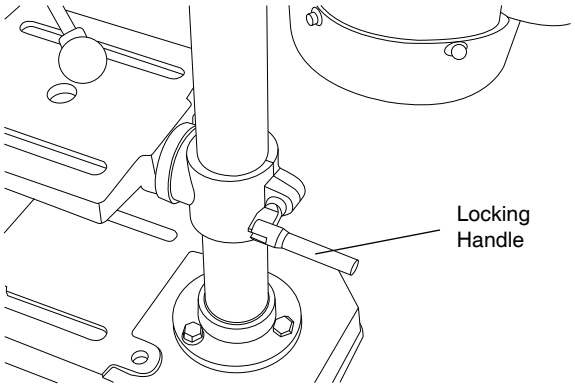
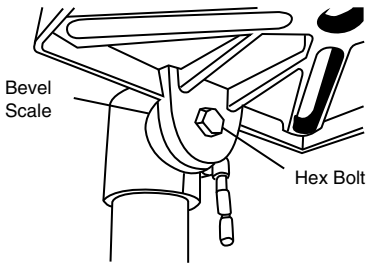


Figure 12



ADJUST SPEEDS

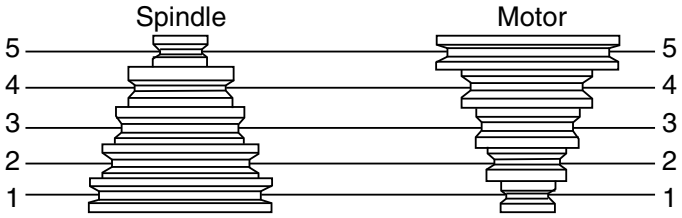
Refer to Figure 13

⚠WARNING

Turn the switch to “OFF” position and disconnect the machine from power source.

This drill press has 5 speeds: 620 RPM, 1000RPM, 1720RPM, 2340RPM and 3100RPM. The speed is determined by the location of the belt on the pulleys. The speed chart shows the pulley configuration for each speed.

Figure 13



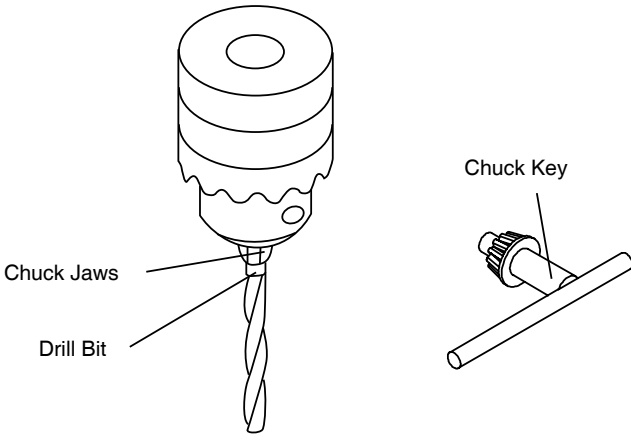
Belt Location	RPM
5-5	3100
4-4	2340
3-3	1720
2-2	1100
1-1	620

INSTALL DRILL BIT

Refer to Figure 14

- Insert the chuck key. Rotate counterclockwise to loosen the chuck jaws so that the opening is slightly larger than the bit size you intend to use.
- Insert the smooth end of drill bit all the way into the chuck. Slightly pull back the drill bit by 1/16”. If the spiral groove (flute) of drill bit is still inside the chuck, pull further until the spiral groove is free from chuck jaws’ grip when tighten.
- Turn chuck key clockwise to tighten the chuck jaws. Check to see the drill bit is centered and secure in the chuck.
- Remember to remove chuck key before operating the machine.

Figure 14



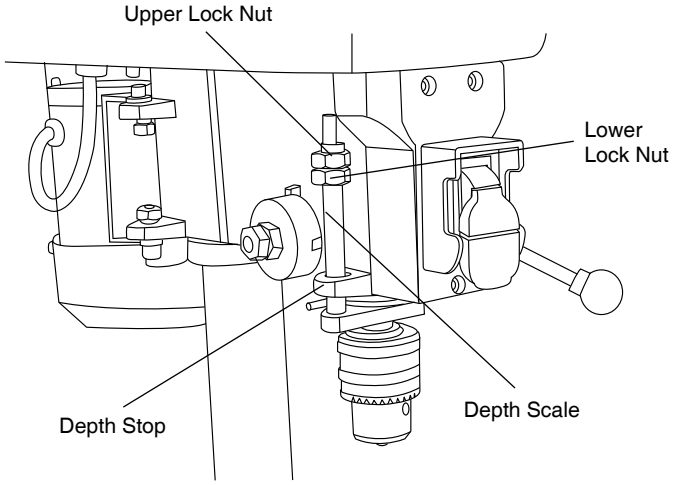
ADJUST DEPTH STOP

Refer to Figure 15

The depth stop is attached to the quill with hex hut that can be lowered or raised on the stud. To set the depth stop:

- Lower the drill bit to the desired height by using the handles.
- Hold the feed handle at the desired position.
- Use wrench to spin the lower lock nut down to contact the depth stop and lock the nut.
- Spin the upper nut against against the lower stop nut and tighten.
- The drill bit will stop after traveling the distance on the depth scale.

Figure 15



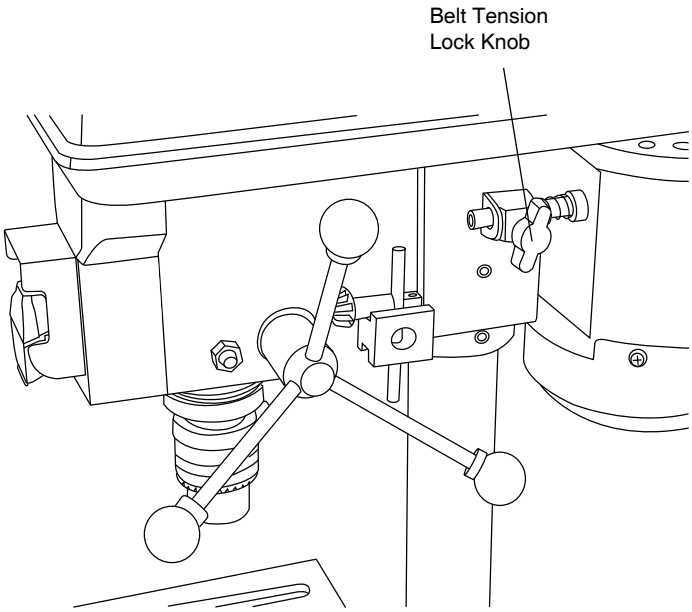
ADJUST BELT TENSION

Refer to Figure 16

The drill spindle speed is determined by the position of the belts on the pulleys inside the head assembly.

- To unlock the belt tension, turn the belt tension lock knob on the right side of the drill press head counterclockwise.
- Pull the motor toward the front of the drill press to loosen the belt tension.
- Position the belt on the correct pulley steps for the desired speed.
- Push the motor away from the drill press head until the belt is properly tensioned.
- Belt tension is correct if the belt deflects approximately 1/2 inch when pressed at its center.
- Tighten the belt tension lock knob to secure the motor in position.

Figure 16



⚠WARNING

Turn the switch to “OFF” position and disconnect the machine from power source before servicing or disassembling any components.

CLEANING

- Keep machine and workplace clean. Avoid accumulation of sawdust on the tool.
- Be certain motor is kept clean and free of dust.
- Use soap and water to clean painted parts, rubber parts and plastic guards.

LUBRICATION

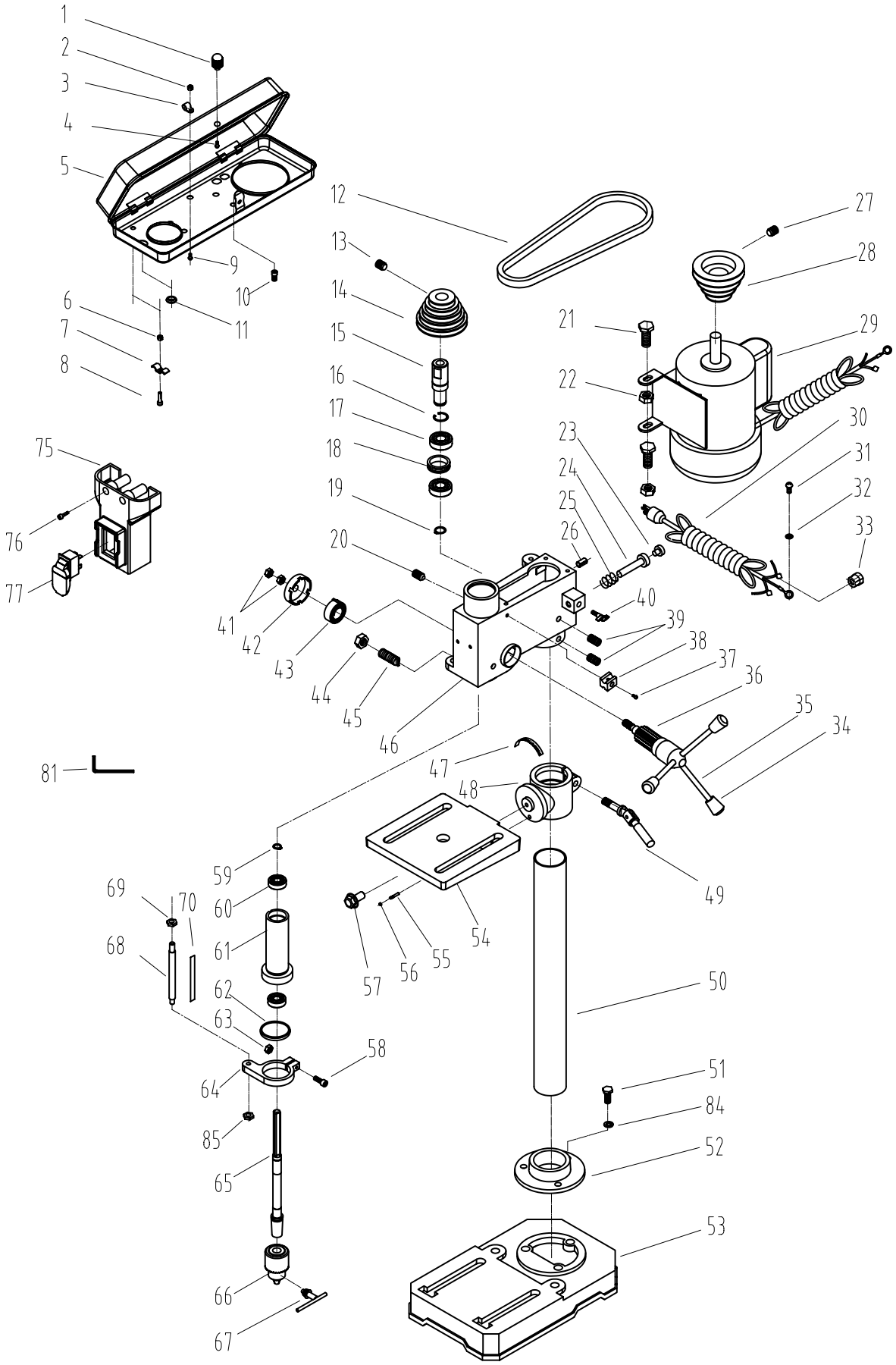
- A light coat of paste wax on the work table will make it easier to feed the workpiece and prevent rust.

KEEP TOOL IN REPAIR

- If power cord is worn, cut or damaged in any way, do not operate the machine.
- Replace any worn, damaged, or missing parts. Use parts listed to order parts.
- Any attempt to repair motor may create a hazard unless repair is done by a qualified service technician.
- Call the customer line at 1-877-393-7121.

10 TROUBLESHOOTING

SYMPTON	POSSIBLE CAUSE(S)	SOLUTIONS
Motor will not start	1. Low voltage 2. Short circuit in line cord or plug 3. Short circuit in motor 4. Open circuit or loose connection in motor 5. Incorrect fuses or circuit breakers 6. Defective switch 7. Defective capacitor	1. Check power supply for proper voltage 2. Inspect line cord and plug for faulty insulation or shorted connection 3. Inspect connection on motor. 4. Inspect connection on motor 5. Replace with correct fuses or circuit breakers 6. Replace switch 7. Replace capacitor
Motor stalls or fails to reach full speed	1. Power overload 2. Low voltage from power supply 3. Undersized line cord 4. Motor overload 5. Short circuit or loose connection in motor 6. Incorrect fuses or circuit breakers	1. Reduce workload on the power supply 2. Check power supply for proper voltage 3. Use line cord of adequate size or reduce length of wiring 4. Reduce load on motor 5. Inspect the connection in motor for loose or shorted connection 6. Replace with correct fuses or circuit breakers
Motor overheats	Motor overloaded	Reduce load on motor. Turn off the machine until motor cools down
Machine slows down while operating	Applying too much pressure during operation	Ease up on pressure
Chuck not stay attached to spindle	Oil, grease, dirt on the tapered surfaces of chuck or spindle.	Clean the surface
Quill return too fast or too slow	Improper spring tension	Adjust spring tension
Excessive drill bit runout	1. Improper chuck installation 2. Improper drill bit installation in the chuck 3. Drill bit bent 4. Worn bearings	1. Install chuck properly 2. Install drill bit properly 3. Replace drill bit 4. Replace bearnings
Noisy operation	1. Spindle pulley looses 2. Motor pulley looses 3. Incorrect belt tension	1. Verify the tightness of retaining nut on the pulley and adjust it if necessary 2. Tighten set screw in motor pulley 3. Adjust tension
Drill bit burns	1. Drill bit is dull 2. Incorrect speed 3. Chips in the hole	1. Replace drill bit 2. Choose the proper speed 3. Clean chips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8” DRILL PRESS PARTS LIST

Key No.	Part No.	Part Name		Qty
1	DP800001	Knob		1
2	DP800002	nut	M5	1
3	DP800003	wire press buckle	UC-1.5	2
4	DP800004	pan head screw	M6x8	1
5	DP800005	pulley housing		1
6	DP800006	nut	M5	1
7	DP800007	line cord clamp		1
8	DP800008	column head screw	M5x12	1
9	DP800009	pan head screw	M5x8	2
10	DP800010	column head screw	M6*10L	4
11	DP800011	rubber grommet	24	1
12	DP800012	V-belt	Z-660	1
13	DP800013	set screw	M6x6	1
14	DP800014	spindle pulley		1
15	DP800015	upper spindle sleeve		1
16	DP800016	retaining ring	STW22	1
17	DP800017	bearing	6203-2Z	2
18	DP800018	spacer		1
19	DP800019	retaining ring	STW17	1
20	DP800020	socket head screw	M8x8	1
21	DP800021	hex head screw	M8x16	2
22	DP800022	nut	M8	2
23	DP800023	mat		1
24	DP800024	motor rod		1
25	DP800025	compression spring		1
26	DP800026	spring pin	¢4X12	1
27	DP800027	set screw	M6x6	1
28	DP800028	motor pulley		1
29	DP800029	motor	120V/60HZ/1725RPM	1
30	DP800030	power cord		1
31	DP800031	pan head screw	M5×8L	2
32	DP800032	lock washer	¢5	2
33	DP800033	Strain relief	6N-4	2
34	DP800034	grip cap		3
35	DP800035	handle bar		3
36	DP800036	pinion		1
37	DP800037	pan head screw	M6x10	1
38	DP800038	Wrench fastness		1
39	DP800039	hex head bolt	M8x8	2
40	DP800040	lock screw		1
41	DP800041	nut	M10	2
42	DP800042	spring cover		1
43	DP800043	roll spring		1
44	DP800044	nut	M8	1
45	DP800045	bolt		1
46	DP800046	head body		1
47	DP800047	angle scale		1
48	DP800048	table bracket		1
49	DP800049	lock handle		1
50	DP800050	column	¢58	1
51	DP800051	hex head bolt	M8x20	3
52	DP800052	column base		1
53	DP800053	base		1
54	DP800054	table		1
55	DP800055	pin		1
56	DP800056	nut	M5	1
57	DP800057	carriage bolt	M12x25	1
58	DP800058	pan head screw	M5x25	1
59	DP800059	retaining ring	STW12	1
60	DP800060	bearing	6201-2Z	2
61	DP800061	quill		1
62	DP800062	rubber washer	¢40*¢52*2T	1
63	DP800063	nut	M5	1
64	DP800064	depth adjust ring		1
65	DP800065	spindle		1
66	DP800066	chuck	JT33 1.5~13mm	1
67	DP800067	chuck key		1
68	DP800068	spindle position bar		1
69	DP800069	nut	M10x1	2
70	DP800070	scale		1
75	DP800075	switch box		1
76	DP800076	pan head screw	M5x50	3
77	DP800077	switch	HY18	1
81	DP800081	Wrench	M4×130×40	1
84	DP800084	spring washer	Ø8	3
85	DP800085	Screw cap	M6	1

WARRANTY

Thank you for investing in a **POWERTEC** power tool. These products have been designed and manufactured to meet high quality standards and are guaranteed for domestic use against defects in workmanship or material for a period of 12 months from the date of purchase. This guarantee does not affect your statutory rights.

SOUTHERN TECHNOLOGIES LLC. BENCH TOP AND STATIONARY POWER TOOL
LIMITED 1 YEAR WARRANTY AND 30-DAY SATISFACTION GUARANTEE POLICY

POWERTEC products are designed and manufactured by **Southern Technologies LLC.** All warranty communications should be directed to **Southern Technologies LLC.** 206 Terrace Dr. Mundelein, IL 60060, Attn: ***POWERTEC*** technical service ; or by calling 1-877-393-7121 (toll free), 9 AM to 5 PM, Mondy through Friday, US Central Time.

30- DAY SATISFACTION GUARANTEE POLICY

During the first 30 days after the date of purchase, if you are dissatisfied with the performance of this ***POWERTEC*** tool for any reason you may return the tool to the retailer from which it was purchased for a full refund or exchange. You must present proof of purchase and return all original equipment packaged with the original product. The replacement tool will be covered by the limited warranty for the balance of the one year warranty period.

LIMITED ONE YEAR WARRANTY

This warranty covers all defects in workmanship or materials in this ***POWERTEC*** tool for a one year period from the date of purchase. This warranty is specific to this tool. **Southern Technologies, LLC** reserves the right to repair or replace the defective tool, at its discretion.

HOW TO OBTAIN SERVICE

To obtain service for this ***POWERTEC*** tool you must return it, freight prepaid, to an authorized ***POWERTEC*** service center for bench top and stationary power tools. You may obtain the location of the authorized service center nearest you by calling (toll free) 1-877-393-7121 or by logging on to the ***POWERTEC*** website at **www.southerntechllc.com**. When requesting warranty service, you must present the proof of purchase documentation, which includes a date of purchase. The authorized service center will either repair or replace any defective part, at our option at no charge to you. The repaired or replacement unit will be covered by the same limited warranty for the balance of one year warranty period.

WHAT IS NOT COVERED

This warranty applied to the original purchaser at retailer and may not be transferred.
This warranty does not cover consumable items such as saw blades, knives, belts, discs, cooling blocks and sleeves.
This warranty does not cover required service and part replacement resulting from normal wear and tear, including accessory wear.
This warranty does not cover any malfunction, failure or defect resulting from:
1) misuse, abuse, neglect and mishandling not in accordance with the owner's manual.
2) damage due to accidents, natural disasters, power outage, or power overload
3) commercial or rental use
4) alteration, modification or reapair by other than an authorized service center for ***POWERTEC*** product.

DISCLAIMER

To the extent permitted by applicable law, all implied warranties, including warranties of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE, are disclaimed. Any implied warranties, that cannot be disclaimed under state law are limited to one year from the date of purchase. **Southern Technologies LLC**. is not responsible for direct, indirect, incidental or consequential damages. Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Southern Technologies LLC., makes no warranties, representations, or promises as to the quality or performance of its power tools other than those specifically stated in this warranty.

NOTE

Southern Technologies, LLC
206 Terrace Drive
Mundelein, Illinois 60060